

60137-245/185-3067
Serial No. 10/781,411, filed 2/18/04

AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows. This listing of claims will replace all prior listings.

1. (Original) A mold valve assembly for a molding system comprising:
a mold valve chamber comprising an output port, said mold valve chamber defining a first axis;
an injection chamber in communication with said mold valve chamber, said injection chamber defining a second axis transverse to said first axis;
an injection piston movable within said injection chamber, an end segment of said injection piston movable to define a portion of a mold valve chamber inner perimeter; and
an air injection system in communication with said mold valve chamber.
2. (Original) The mold valve assembly as recited in claim 1, wherein said air injection system comprises an air source in communication with an air inlet through said mold valve chamber.
3. (Currently Amended) The mold valve assembly as recited in claim 1, further comprising a mold valve piston movable within said mold valve chamber, said mold valve piston movable within said mold valve chamber, said mold valve piston comprises a non-metallic portion between a first metallic portion and a second metallic portion.
4. (Original) The mold valve assembly as recited in claim 3, wherein said mold valve piston is selectively movable to block an air inlet through said mold valve chamber.
5. (Original) The mold valve assembly as recited in claim 4, wherein said mold valve piston scrapes said end segment as said mold valve piston moves toward said output port.

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6. (Currently Amended) A molding system comprising:
a mold assembly which defines a mold cavity;
a mold valve mix head assembly selectively mountable to said mold assembly said mold valve assembly including a mold valve chamber in communication with an injection chamber; and
an air injection system in communication with said mold valve assembly to selectively inject air into said mold through said mold valve chamber of said mold valve assembly.

7. (Original) The molding system as recited in claim 6, further comprising a mix head assembly in communication with said mold valve assembly.

8. (Original) The molding system as recited in claim 7, further comprising a feed assembly in communication with said mix head assembly.

9. (Currently Amended) The molding system as recited in claim 6, wherein said mold valve assembly comprises:

[[a]] said mold valve chamber comprising an output port, said mold valve chamber defining a first axis;
[[an]] said injection chamber in communication with said mold valve chamber, said injection chamber defining a second axis transverse to said first axis;
and
an injection piston movable within said injection chamber, an end segment of said injection piston movable to define a portion of a mold valve chamber inner perimeter.

10. (Currently Amended) The molding system as recited in claim 9, wherein said air injection system communicates with said mold valve chamber, in response to a position of a mold valve piston movable within said mold valve chamber.

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11. (Withdrawn) A method for injecting matrix into a mold assembly through a mold valve assembly comprising an injection chamber and mold valve chamber, the method comprising the steps of:

- (a) injecting a mixture material into the mold assembly through the injection chamber and the mold valve chamber;
- (b) driving the mixture material into the mold valve chamber with a first piston;
- (c) driving the mixture material from the mold valve chamber into the mold assembly with a second piston;
- (d) curing the mixture material to form a cured article within the mold assembly;
- (e) retracting the second position to an ejection position; and
- (f) injecting air through the mold valve chamber into the mold assembly between the cured article and the mold assembly.

12. (Withdrawn) A method as recited in claim 11, further comprising the step of: orienting an axis defined by the first piston transverse to a second axis defined by the second piston.

13. (Withdrawn) A method as recited in claim 11, further comprising the step of: locating the second piston at an injection position prior to said step (a).

14. (Withdrawn) A method as recited in claim 13, wherein said step (e) comprises: retracting the second piston past the injection position.

15. (Currently Amended) The molding system as recited in claim 1, wherein air is selectively injected into said mold cavity in response to a controller movement of mold valve piston within said mold valve chamber after a molded article has cured within a mold cavity

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16. (Currently Amended) The molding system as recited in claim 6, further comprising a mold valve piston movable within said mold valve chamber, said mold valve piston movable within said mold valve chamber, said mold valve piston comprises a non-metallic portion between a first metallic portion and a second metallic portion, said non-metallic portion definition an interference fit within said mold valve chamber.

17. (Currently Amended) The molding system as recited in claim 6, wherein air is selectively injected into said mold cavity in response to a controller movement of mold valve piston within said mold valve chamber after a molded article has cured within the mold cavity